

Sheet 1 of 5

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATIONAtty. Docket No.  
1138-102Serial No.  
10/689,863Applicant:  
Agarwal, et al.Filing Date  
October 20, 2003Group  
2838

## U.S. Patent Documents

Initial	Document Number	Date	Name	Class/Subclass
<u>S</u>	5,302,858	04/12/94	Folts	HO2J 9/06

## Foreign Patent Documents

Examiner Initial	Document Number	Date	Country	Name	Class/ubclass
<u>S</u>	01140014.5	11/20/01	China	Wang	H02M 1/12

## Non-Patent Documents

## Other Documents (including Author, Title, Source, Date, Pertinent Pages)

S Schlecht, M.F. and Miwa, B.A., "Active power factor correction for switching power supplies," IEEE Transactions Power Electronics, Vol. 2, No. 4, pp. 273-281, 1987. *no match*

| Akagi, H., "Trends in active power line conditioners," IEEE Transactions on Power Electronics, Vol. 9, pp. 263, May 1994.

| Redl, R.; Balogh, L. and Sokal, N., "A new family of single stage isolated power factor correctors with fast regulation of the output voltage," IEEE Power Electronics Specialists Conference, pp. 1137-1144, 1994 *no match*

| Erickson, R.; Madigan, M. and Singer, S., "Design of a simple high-power-factor rectifier based on the flyback converter," IEEE Applied Power Electronics Conference and Exposition, pp. 792 - 801, 1990.

| Prasad, A.R.; Ziogas, P.D. and Manias, S., "A new active power factor correction method for single phase buck boost AC - DC converter," Proceedings of APEC, pp. 814 - 820, 1992.

S Yang, Eric X.; Jiang, Y.; Hua, G. and Lee, F.C., "Isolated boost circuit for power factor correction," Proceedings of APEC, pp. 196 - 203, 1993. *↓*

Examiner

R. Jey

Date Considered

Mar 06

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATION

Atty. Docket No.  
1138-102

Serial No.  
10/689,863

Applicant:  
Agarwal, et al.

Filing Date  
October 20, 2003

Group  
2838

Kheraluwala, M. ; Steigerwald, R. and Gurumoorthy, R., "A fast response high power factor converter with a single power stage," IEEE Power Electronics Specialists Conference, pp. 769-779, 1991. *no mark*

Daniele, Matteo ; Jain, Praveen K. and Joos, Geza, "A single-stage power-factor-corrected AC/DC converter," IEEE Transactions on Power Electronics, Vol. 14, No. 6, pp. 1046 – 1055, Nov. 1999.

Wei, H.; Batarseh, Issa; Zhu, G. and Kornetzky, P., "A single-switch AC-DC converter with power factor correction," IEEE Trans. on Power Electronics, Vol. 15, No. 3, pp. 421 – 430, May 2000.

Tacca, H.E., "Power Factor Correction using merged flyback-forward converters," IEEE Transactions on Power Electronics, Vol. 15, No. 4, pp. 585 – 594, July 2000.

Jovanovic, M.M. ; Tsang, D.M.C. and Lee, F.C., "Reduction of voltage stress in integrated high quality rectifier regulators by variable frequency control," Proceedings of Applied Power Electronics Conference (APEC), pp. 569 – 575, 1994 *no mark*

Bontemps, Serge and Grafham, Denis, "Low-loss resonant gate drive saves energy and limits EMI in 3.5kW hard-switched PFC boost-converters," PCIM 2002 (Europe), Nuremberg, Germany.

Joshi, Madhuwanti and Agarwal, Vivek, "EMI mitigation in power electronic circuits operating at high power factor," Proceedings of the IEEE International Conference on Industrial Technology 2000, Goa India, pp. 267 – 271.

Shet, V.N., "Power Factor Correction in Power Converters," Ph.D. Dissertation, Dept. of Electrical Engineering, IIT-Bombay, 2002.

Stratford, R.P., "Rectifier harmonics in power systems," IEEE Trans. Ind. Appl. Vol. IA-16, pp. 271-276, 1980.

Shepherd, W. ; Zand, P., "Energy flow and power factor in nonsinusoidal circuits," (London: Cambridge University Press), 1979.

Schwarz, F.C. , "A time-domain analysis of the power factor for a rectifier filter system with over and subcritical inductance," IEEE Trans. Ind. Electron. Control Instrum., IECI-20(2), pp. 61-68, 1973.

Vorperian, V.; Ridley, R., "A simple scheme for unity power-factor rectification for high frequency AC buses," IEEE Trans. Power Electron 5, pp. 77-87, 1990. *8*

Examiner

Date Considered

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATION

Atty. Docket No.  
1138-102

Serial No.  
10/689,863

Applicant:  
Agarwal, et al.

Filing Date  
October 20, 2003

Group  
2838

Jain, P., "A unity power factor resonant AC/DC converter for high frequency space power distribution system," IEEE Power Electron. Spec. Conf., Rec. 1, 1994.

Prasad, A.R.; Ziogas, P.D.; Manias, S., "A novel passive waveshaping method for single phase diode rectifiers," IEEE Trans. Ind. Electron., IE-37, pp. 521-530, 1990.

Lai, Jih-Sheng ; Hurst, D.; Key, T., "Switch mode power supply power factor improvement via harmonic elimination methods," IEEE Appl. Power Electron. Conf., Rec., pp. 415-422, 1991.

Prasad, A.R.; Ziogas, P.D.; Manias, S., "A Comparative evaluation of SMR converters with and without active input waveshaping," IEEE Trans. Ind. Electron. IE-35(3), pp. 461-468, August, 1988.

Mohan, N. ; Undeland, T.M., Ferraro, R.J., "Sinusoidal line current rectification with a 100kHz BN-SIT step up converter," IEEE Power Electron. Spec. Conf., Rec., pp. 92-98, 1984.

Enjeti, P.N.; Martinez, R., "A high performance single phase AC to DC rectifier with input power factor correction," IEEE Appl. Power Electron. Conf., Rec., pp. 196-203, 1993.

Dawande, M.S.; Dubey, G.K., "Bang bang current control with predecided switching frequency for switch mode rectifiers," IEEE Power Electron Drives Syst. Conf., Rec., pp. 538-542, 1995.

Zhou, C.; Ridley, R.B.; Lee, F.C., "Design and analysis of hysteretic boost power factor correction circuit," IEEE Power Electron. Spec. Conf., Rec., pp. 800 - 807, 1990.

Spangler, J.J. ; Behera, A.K. , "A comparison between hysteretic and fixed frequency boost converters used for power factor correction," IEEE Appl. Power Electron. Conf., Rec., pp. 281-286, 1993.

Tang, W. ; Lee, F.C. ; Ridley, R.B.; Cohen, I. , "Charge control : Modeling, analysis and design," IEEE Power Electron. Spec. Conf., Rec., pp. 503-511, 1992.

Tang, W. ; Jiang, Y.M.; Hua, G.C.; Lee, F.C.; Cohen, I., "Power factor correction with flyback converter employing charge control," IEEE Appl. Power Electron. Conf., Rec., pp. 293-298, 1993.

Endo, H.; Yamashita, T. ; Sugiura, T., "A high power factor buck converter," IEEE Power Electron. Spec. Conf., Rec., pp. 1071-1076, 1992.

Maksimovic, D.; Erickson, R., "Universal-input, high-power-factor, boost doubler rectifiers," IEEE Appl. Power Electron. Conf., Rec., pp. 459-465, 1995.

Examiner

Date Considered

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATION

Atty. Docket No.  
1138-102

Serial No.  
10/689,863

Applicant:  
Agarwal, et al.

Filing Date  
October 20, 2003

Group  
2838

Mwinyiwiwa, Bakari M.M.; Birks, P.M.; Ooi, Boon-Teck, "Delta-modulated buck-type PWM converter," IEEE Trans. Ind. Appl. 28, pp. 552-557, 1992. *no month*

Ooi, Boon-Teck; Mwinyiwiwa, Bakari M.M.; Wang, X., Joos, G., "Operating limits of the current-regulated delta-modulated current-source PWM rectifier," IEEE Trans. Ind. Appl., 38, pp. 268-274, 1991.

Todd, P.C., UC 3854, "Controlled power factor correction circuit design," Unitrode-Product Applications Handbook, Lexington, MA, 1993-94.

Oruganti, R. and Palaniapan, M., "Inductor voltage controlled variable power factor buck - type AC-DC converter," Proceedings of Power Electronics Specialists Conference (PESC), pp. 230 - 237, 1996.

Oruganti, R. and Srinivasan, Ramesh, "Single phase power factor correction - A review," Sadhana, vol. 22, part 6, pp. 753 - 780, 1997.

Prasad, A.R., Ziogas, P.D., Manias, S., "A novel passive waveshaping method for single phase diode rectifiers," IEEE Tran. Ind. Electron., IE-37, pp. 521 - 530, 1990.

Takahashi, I., Igarashi, R.Y., "A switching power supply of 99% power factor by the dither rectifier," IEEE International Telecommunication Energy Conference Record, pp. 714-719, 1991.

Madigan, M.; Ericson, R.; Ismail, E., "Integrated high quality rectifier regulators," IEEE Power Electronic. Spec. Conference, pp. 1043 - 1051, 1992.

Elmore, M.S.; Peterson, W.A.; Sherwood, S.D., "A power factor enhancement circuit," IEEE Applied Power Electron. Conf. Record, pp. 407 - 414, 1991

Agarwal, Vivek; Sundarsingh, V. P.; Bontemps, Serge and Grafham, Denis, "A Smart Power Converter Module for Buck Applications Operating at High Input Power Factor," Proceedings of the 28<sup>th</sup> Annual Conference on Industrial Electronics, Control and Instrumentation (IECON), Sevilla, Spain, pp. 858-863, 2002

Agarwal, Vivek; Sundarsingh, V.P.; Bontemps, Serge; Calmels, Alain and Grafham, Denis, "Novel single-switch isolated 42V/1kW battery charger module uses converter operating at near-unity Power Factor," Proceedings of PCIM - 2003, Nuremberg, Germany, May 20-22, 2003

Umanand, L. and Bhat, S.R., "Design of magnetic components for switched mode power converters", First Edition, Willey Eastern Limited, 1992.

Examiner

Date Considered

*Mar 06*

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATION

Atty. Docket No.  
1138-102

Serial No.  
10/689,863

Applicant:  
Agarwal, et al.

Filing Date  
October 20, 2003

Group  
2838

Zhang, Y.F.; Yang, L. and Lee, C.Q., "EMI reduction of power supplies by Bi-Frequency modulation," Proceedings of the Ninth Annual Applied Power Electronics Conference and Exposition, pp. 601 – 607, 1994 *nmw*

Garcia, O.; Cobos, J.A.; Alou, P.; Prieto, R.; Uceda, J. and Ollero, S., "A New Family of Single State AC/DC Power Factor Correction Converters with Fast Output Voltage Regulation," Power Electronics Specialists Conference, 1997, PESC '97 record, 28<sup>th</sup> annual IEEE, St. Louis, MO, 22-27 June 1997, New York, NY IEEE, US 22 June 1997, pp. 536-542

Nagao, Michihiko, "One Stage Forward-Type Power Factor Correction Circuit," Power Electronics Specialists Conference, 1997, PESC '97 Record, 28<sup>th</sup> Annual IEEE, St. Louis, MO, 22-27 June 1997 *nmw*

European Committee for Electrotechnical Standardization (CENELEC), Electromagnetic compatibility (EMC), Part 3. Limits, Section 3. Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current 16A, European Standard EN 61000-3-3, January 1995

Examiner

Date Considered

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATION

Atty. Docket No.  
1138-102

Serial No.  
10/689,863

Applicant:  
Agarwal, et al.

Filing Date  
October 20, 2003

Group  
2838

### Non-Patent Documents

Other Documents (including Author, Title, Source, Date, Pertinent Pages)

8

Kochar, M.J. and Steigerwald, R.L., "An AC to DC converter with high quality input waveforms,"  
Proceedings of IEEE Power Electronics Specialists Conference, pp. 63-75, 1982.

*no month*

Examiner

*R.ley*

Date Considered

*Mar 06*

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (modified)  
INFORMATION DISCLOSURE CITATION

Atty. Docket No.  
1138-102

Serial No.  
10/689,863


Applicant:  
Agarwal, et al.

Filing Date  
October 20, 2003


Group  
2838

### Non-Patent Documents

#### Other Documents (including Author, Title, Source, Date, Pertinent Pages)

 Andreycak, Bill, "Power Factor Correction Using The UC3852 Controlled On-Time Zero Current Switching Technique, Application Note U-132, Unitrode Corporation, Merrimack, New Hampshire, 1991, pp. 3-235- 3-250. *non useful*

 Andreycak, Bill, "Controlled ON-Time, Zero Current Switched Power Factor Correction Technique," Texas Instruments, 2001, pp. 3-1 – 3-11. *no useful*

 International Standard, Electromagnetic Compatibility (EMC) - Part 3: Limits – Section 2: Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase), CEI/IEC 1000-3-2; 1995, p. 7; 31; 39. *no useful*

Examiner

*Driley*

Date Considered

*Mar 06*

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.